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At the Author's Compliment

TREATISE

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DYSPEPSIA;

OR,

INDIGESTION.

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"No part of the animal body can in general be very considerably disordered without occasioning a correspondent derangement in other parts of the system."

ABERNETHY.

"Utinam liceret sæpius defunctorum Cadavera scrutari !
quam cauti essent in tractandis Morbis Medici si novissent
post Mortem in Cadavere se debere demonstrare, an bene, an
male de Morbi Indole judicassent, quot non detegerentur la-
tentes Morborum Causæ !"

VAN SWIETEN,

Comment in Boerhaavi Aphorismos, tom. 1. p. 13.

Advertisement.

LET the stomach be considered in an anatomical, physiological, or pathological point of view, I believe it will be readily acknowledged an organ that possesses a pre-eminent power over the whole body; for on its salutary action, or on the perfect performance of its functions, nutrition, and the continuance and preservation of health, in a great measure, depend. The sphere of its influence in the production and cure of disease is no less evident and considerable.

A part or organ that exercises such important offices, and that is perpetually

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liable to injuries, not only peculiar to itself, but also strongly affected from sympathy and connexion by those of others, must naturally be subject to many and various disorders.

The stomach, although apparently simple in its structure, is yet endowed with properties which the most skilful anatomist or chemist cannot explain. By observation and experience we learn the laws by which its powers are governed, but we shall perhaps ever remain ignorant of the exact manner in which they are performed. A debility or relaxation of its fibres, connected with or produced by a vitiated state of its secretions, appears to form the principal foundation of its most frequent derangements, and none is more common than Dyspepsia, or Indigestion, which forms the subject of this Treatise.

The purport of submitting the following Observations to the Public is to warn the young Practitioner against falling into a pre-

vailing error of ascribing to the Liver, almost exclusively, the cause of all the disorders in the digestive organs, and thereby to prevent him from adopting the empirical practice of exhibiting Mercury rashly and injudiciously, on all occasions, as a panacea.

Preface.

IN order to give some illustration of the Disorder about which I am to treat, it may not be amiss to premise with a concise physiological sketch of the structure and functions of the parts in whose derangements it chiefly consists.

By the assistance of the lips the food is received into the mouth, where it is mixed by the tongue, divided by the teeth, and reduced by the saliva into a soft pulpy mass. By the contraction of the pharynx it is conveyed to the oesophagus and stomach; in its passage hither, and especially in the latter part, it is united with mucus. The great agent, however, in the process of digestion is secreted by the stomach,

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and is called the succus gastricus. In this cavity the aliments are subjected to a heat of 98 degrees, are detained for some time, are agitated, and intimately united by strong muscular contractions, and are brought to a finer substance called chyme: at length, by a relaxation of the pylorus, this is transmitted to the duodenum. The stimulus of the food excites the stomach to contraction and to an increased secretion of the succus gastricus, whereby a more perfect admixture takes place, and the heat must facilitate the solution. When the aliments, by the united powers of heat, agitation, admixture with saliva, succus gastricus, and probably some degree of fermentation, has been converted into chyme, and delivered to the duodenum, the stomach, relieved from the weight and stimulus of its contents, becomes quiescent, and in a great measure ceases to secrete its peculiar fluid. On the arrival of the chyme at the duodenum, it receives the intestinal lymph, the bile, and the pancreatic juice, with each of which it is incorporated in its progress through the jejunum and ileum, undergoing at the same time further chemical changes, so as to form chyle.

In the stomach and duodenum, but especially in the jejunum and ileum, are seen the lacteal vessels, which absorb the chyle, and carry it to the mesenteric glands, by which it is, perhaps, further changed, and rendered fitter for being conveyed thence to the thoracic duct, subclavian vein, and general circulation of the blood. The remaining part becomes the fecal residue; after being moistened by intestinal lymph and mucus, and having the thinner particles absorbed, is carried by the peristaltic motion to the rectum, from whence, at stated periods, it is discharged. It is probable, says Dr. HAMILTON, "that this fecal residue is discharged into the more capacious colon, where the ileum enters it by a lateral opening, so contrived that the contents of the colon cannot be returned. This circumstance makes a distinction between the functions of the smaller and larger intestines, which is not commonly noticed. The former complete the preparation of the nourishment, and afford opportunity for its being absorbed, while the latter receive and detain the fecal part till after it has accumulated, and perhaps undergone certain changes, when it is voided in a given quan-

tity and at stated intervals. The regulation of the intestinal evacuation is connected besides, in a particular manner, with the well-being and healthy state of the stomach and intestines themselves. The due regulation of the alvine discharge constitutes much of the prophylactic part of medicine, and teaches the propriety of advising those who wish to preserve good health, or to recover it when it is impaired, to attend carefully to this circumstance. In this view it may be proper, on some occasions, to counsel the valetudinarian to forsake the haunts and habits of fashionable life, to quit the crowded city, alluring amusements, and various occupations carried on in airless and even in tainted rooms, to shun luxurious tables, indolence, and late hours, to retrace the steps by which he has deviated from simple nature, and to court the “country pure air and simple diet.”

Dr. GREGORY, in his *Conspectus Medicinæ Theoreticæ*, has given an elegant description of the various opinions of authors, on the manner in which digestion is performed :—

“Theorias nec paucas at Cuique lubuerat, de Ciborum concoctione antiquiores proposuerant Medici et Physiologi quas omnes Experientia instructi exploserunt Nuperi. Sanior docet ratio, atque experimenta neque Calori, neque Agitationi, neque Trituræ, neque Fermentationi, neque demum putredini solam,tribuendam esse Concoctionem. Succus ipsius Ventriculi proprius, copiosus secretus Digestionem Ciborum præstare videtur Liquoris hujus qui inest Ventriculo cujusque Animalis vis solvens, in aliis Animalibus alia observatur, est tamen omnibus, qualis ad coquendos Cibos, sive Carnem, sive fruges quibus vescuntur satis valeat. Hoc plane docuerunt Experimenta et extra, et in ipso Hominum Corpore nuper instituta a variis Auctoribus præsertim Stephens et Spallanzani. Fatendum tamen est minime plenam Mutationis, quam Cibi Ventriculo et Intestinis subeant Notitiam adhuc habere Medicis. Hoc vero satis notum est quo vehementius fermentum fuerit in Ventriculo, eo fere Hominem pejus et tardius concoquere.”

DYSPEPSIA.

By this Name is understood a difficult, painful, or imperfect Digestion, one of the most frequent and varied forms of Chronic disorder, and the fruitful source of many others, both corporeal and mental.

The following is DR. CULLEN'S accurate and comprehensive definition :—

“ Genus XLV. Anorexia, Nausea, Vomitus, Inflatio, Ructus, Ruminatio, Cardialgia, Gastrodynia pauciora vel plura horum simul concurrentia, plerumque cum Alvo, adstricta et sine alio vel Ventriculi ipsius vel aliarum partium morbo.”

In this as in other complaints we do not always meet with the whole of the characteristic symptoms in every case, but the leading ones generally present themselves in an evident manner, or in such order and degree as to establish a correct diagnosis. That the nature of Dyspepsia may be fully described in all its bearings, I shall give an ample detail of its symptoms, or phenomena, in their usual concurrence and succession. This I am the more anxious to do, because I perceive that mistakes are frequently committed in ascribing to lesions of structure in other organs, and particularly the liver, symptoms purely flowing from impaired or disordered functions of the alimentary canal, and in consequence leading to dangerous errors in practice. Therefore, previously to the giving of the history of Dyspepsia, I shall avail myself of the distinction so properly made by Mr. ABERNETHY between disorder and disease. “Disorder,” he says, “I should define to be an unhealthy state of the feelings or functions of parts, without any ap-

parent alteration of structure, and disease a visible alteration in the appearance or structure of the affected part. Disorder or nervous disease is the effect of vascular actions, excited by nervous disorder; an organ may become diseased to a certain degree, and yet disorder ceasing, its feelings and functions may be natural and healthy, yet disease must have a tendency to establish disorder." P. 219.

We commonly observe in Dyspepsia the following symptoms—an impaired or lost appetite, sickness, vomiting, and pain of stomach, especially after eating. The material ejected by vomiting is of various colour, being sometimes green or yellow, or very tough ropy phlegm. The taste of the mouth is disagreeably bitter, and the tongue is more or less furred, especially in the morning, and on its posterior part. The papillæ are enlarged and protrude through the fur. There is flatulence in the stomach and bowels, with tension and pain in the hypochondriac, epigastric

and umbilical regions ; eructations of wind and of vitiated fluids from the stomach, through the oesophagus, bringing an acid or putrid liquor, or an insipid water or viscid phlegm. The sharpness of the fluid is sometimes so great as to set the teeth on edge, as it is called, or to excoriate the parts over which it passes. The breath is foetid and offensive ; there is a peculiar and painful sensation of heat in the stomach, called heartburn ; the bowels are generally costive, but sometimes there is an alternate state of costiveness and diarrhœa.

The alvine evacuations are often but little changed from their usual appearance, but at others they are mucous, foetid, and dark or pitch-coloured ; a sallow complexion, vertigo, or giddiness, tinnitus aurium or singing in the ears, dimness of sight, and other defects of vision, particularly *muscæ volitantes*, or the appearance of small insects flying before the eyes ; general or partial tremours, or

great nervousness, watching, palpitation of the heart, intermission and irregularity of the pulse, fluttering in the epigastrium ; generally a small and slow pulse, head-aches in the forms of hemicrania, cephalalgia, or clavus hystericus ; transient or erratic pains in the breast, sides, and back ; partial and profuse sweats, even when without exercise ; great languor, debility, and depression of spirits, with a sensation of uneasiness, vacuity, or sinking at the præcordia ; the urine is either copious and pale coloured, or more scanty and turbid ; in the bowels there are frequent pains, tension, weight, and borborygmi, or a rumbling noise ; a sense of stricture in the throat, like globus hystericus ; the depression of spirits or despondency is so common an attendant on Dyspepsia, that Dr. GREGORY thinks hypochondriasis should not be separated from it, and indeed the admirable history of this malady, given by Dr. SYDENHAM, identifies it with Dyspepsia, both in its nature and cure ; the state of the mind is produced by

the affection of the stomach, and which is illustrated by the opposite effects from taking wine and other cordials. It occurs particularly and severely from sea sickness, and especially as happening to persons of the melancholic temperament. Dyspepsia is various in its duration, sometimes it lasts only a few hours, and consists in a nausea, vomiting, or diarrhœa, but in general it goes on for days, weeks, or even months, or recurs often from slight causes ; sometimes it lasts for years, or even a long life ; from a long continuance of it, patients become pale, emaciated, dropsical, or phthisical ; it is often an hereditary, but generally speaking, an acquired disorder.

PROXIMATE CAUSE.

The remote causes, and the symptoms just described, clearly indicate that this complaint consists in an atony, loss of tone, or imbecility of the muscular fibres of the stomach and intestines ; the succus gastricus seems also

to undergo morbid changes, and is probably diminished in quantity, and vitiated in quality.

REMOTE CAUSES.

These being very numerous and multifarious, it may be of advantage, for the sake of simplicity and perspicuity, to divide them into two classes, comprehending under the first, those which act primarily and directly on the stomach; and under the second, those which act indirectly on the stomach, by first injuring and enfeebling the whole system. Among the first set of causes may be justly enumerated certain sedatives—as tea, coffee, tobacco, opium, aromatics, fermented liquors, and ardent spirits. Both tea and coffee are hurtful, not only from the warm water, but from their own peculiar powers. Some kinds of tea agree better with dyspeptics than others, as bohea better than green. A constant effect produced, both by tea and coffee, is watchfulness, and this establishes their agency or influence

on the nervous system, as also their utility in some cases after full meals. Another common effect of tea on some constitutions, is to produce vomiting, the frequent occurrence of which must greatly injure the tone and healthy action of the stomach ; they induce tremour of the hands, and general debility. Dr. CURRIE ascribes, among other things, the susceptibility of taking febrile contagion to the profuse use of tea. This ingenious writer gives a melancholy description of the combined powers of tea and ardent spirits on the constitutions of the poor. “ In the eighteen hundred cellars in Liverpool, there are many in which animal food is not tasted more than once a week, but there are very few in which tea is not drunk daily ; it is often, indeed, drunk twice a day. The money spent in tea is worse than wasted, it is not only diverted to an article that furnishes no nutrition, but to one that debilitates the empty stomach, and incapacitates for labour ; hence the vast number of Dyspeptic complaints among our patients at the public

charities, which are almost all to be traced to the use of tea or spirits, often indeed assisted by depression of mind. At the Infirmary and Dispensary together, this class of patients exceeds five hundred annually, the great majority are females."

Tobacco, either in chewing or smoaking, or taking snuff, will enter the stomach, and directly impair its action ; the unwise caution of smoaking and chewing tobacco for many hours in a day, not only injures the salivary glands, producing dryness in the mouth when this drug is not used, but I suspect that it also produces schirrus of the pancreas.* But of all the remote causes, none acts so certainly and dangerously as the use of ardent spirits, their stimulus is always followed by more or less of debility ; their pernicious operation on the bodies and morals of men, have been fully and pathetically delineated by various learned physicians, among whom may be mentioned in

* Darwin.

particular, the late Dr. A. FOTHERGILL and Dr. LETTSOM. They produce flaccidity of the solids, tenuity of the fluids, indigestion, palsy, apoplexy, schirrosity, dropsy, &c. They generate heat and inflammation in the liver, and dispose to gangrene. By occasioning debility they produce a stagnation of the fluids, promote exhalation, and at the same time diminish absorption; hence follows an incurable dropsy. Spirits operate immediately and chiefly on the stomach, and through its medium on the liver. The appetite is destroyed, and general debility and emaciation ensue.

Similar effects must have been perceived by Dr. SYDENHAM, for he wishes the use of them to be altogether banished, or applied only to the healing of ulcers, or curing of burns. “*Optandum sane esset, quod aut idem omnino exulet, aut saltem spiritibus, reficiendis, non vero iisdem extinguendis usurpetur, nisi quis internum ejus Usus prorsus abdicendum maluerit, proindeque a*

Chirurgis solum ad Ulcera digerenda fotubus immiscendum aut Ambustis extus Admoven-
dum.”* The abuse of ardent spirits is not only the most fertile source of simple idiopathic Dyspepsia, but of symptomatic Dyspepsia, as well as many other diseases of the vital organs, since it acts by inducing both disordered functions and diseased structure. In the list of evils thus induced, stand foremost Hepatitis Phthisis, Mania, Apoplexy, Epilepsy, Paralysis, and Dropsy; and what more need be added to this formidable train?

There is, however, besides a most alarming and dangerous form of disease peculiarly the offspring of intemperance, and which in its nature and cure, points out in the most striking manner, the influence and effects of nervous irritation.

The disease I mean is Delirium Tremens. We here perceive great diminution of nervous

* Opera Medici, p. 271.

energy, with increased vascular action, or even inflammation, but the latter state deserves in practice only a secondary consideration, for the symptoms are aggravated by depletion, and are cured by sedatives or anodynes, allaying or removing nervous irritation. Nearly thirty years since I met with a violent case of this disease in an elderly and intemperate man, it had supervened on intoxication continued for several days. In this patient I observed by accident the good effects of an anodyne in removing for a time the delirium, and in tranquillizing the hurry and agitation of his mind. The medicine was repeated at short intervals, so as to keep the system constantly under its influence, and by this means was obtained a speedy cure. Many similar instances have come since under my care, and they have all yielded to similar treatment. Topical bleeding may be indicated and prove beneficial, but I have always seen injury produced by general bleeding. It is surprising to see the quick and salutary effect of efficient

doses of opium. The pulse may be 120, 140, or more, in a minute, with considerable fullness and strength ; the skin hot, the face flushed, the blood highly inflamed, and the delirium furious ; and yet all these symptoms will be increased by bleeding, but arrested, diminished, and removed by the judicious exhibition of opium. Dr. SUTTON, in a very able Tract, has, with great propriety and success, recommended the same practice. It is to the peculiar operation of pure alcohol, in ardent spirits on the human body, that we are to ascribe these baneful effects, for the like consequences rarely follow from the use, although intemperate, of wine, and the common fermented liquors of cider, beer, and porter. These, however, are too often carried to excess, and seldom fail to produce plethora, debility, loss of appetite, and many alarming diseases. Who can suppose that sixteen or more pints of cider or beer can be drunk daily, by any person, with impunity?

Opium also acts very injuriously on the stomach. Some people, even in this country, habituate themselves to take as large a quantity as two drachms at once. It soon debilitates the stomach and whole system. Opium, given only in the form of medicine, will sometimes induce Dyspepsia, although it be used for a short time; nay, given by injection, it will operate on the whole nervous system, but its action in this way is safer.

Many bitters are direct poisons, and it is probable this virtue is possessed by all, in different degrees, especially if taken for a long time. Instead of proving tonics, they weaken the whole system. The laurel bay proves fatal to man and other animals. Bitter almonds are said quickly to destroy some animals. If these medicines are used, they should be given only in small quantity, and for only a short period, or for ten or twelve days.

Dr. CULLEN observes, that aromatics will occasion Dyspepsia. Drinking much warm li-

quid, and eating food too hot, are very hurtful to the stomach and oesophagus, and they often produce vomiting. Tea, coffee, and soups are usually taken much too hot and too copiously. The distension often repeated, relaxes the fibres of the stomach; vomiting frequently occurring, whether spontaneous or excited by art, will occasion, or greatly contribute to produce Dyspepsia. The same effect very often takes place from full living, especially if regular active exercise, be at the same time omitted. “*Verum et Ventriculi Paralysis sæpe ortum ducit a sola nimia flacciditate fibrarum muscularum ventriculi.*”*

Vomiting greatly weakens the fibres of the stomach, and hence the practice of attempting to preserve health, or of curing diseases of the stomach, by frequent emetics, is very injurious. Frequent spitting is another remote cause, and generally the natural effect of chewing or smoaking tobacco, and increasing

* Van Swieten, tom. 3, p. 367.

its other pernicious qualities. A waste of saliva injures and retards the process of digestion, it also hurts the nervous system. In this manner mercurial salivation induces severe Dyspepsia, with general languor and debility.

An excess in the quantity of food is a very frequent cause of this complaint, and this accounts for the many instances to be met with of it in the higher classes of men. Though persons can digest more of mixed than of simple food, the advantage is more than counterbalanced by the quantity to which variety always invites. Salted, dried, and oily food, cheese, paste, fried food, and melted butter, are all hard, viscid, and difficult of digestion, and tend directly to weaken the stomach. Oil often remains unchanged after the digestion of other matters. The digestion is often destroyed by the addition of a single article, as happens from the drinking at meals of harsh or unsound beer or porter, which disturbs or interrupts the whole process of digestion. Large and un-

dissolved matters seldom pass the pylorus, hence they are thrown up by vomiting, long after they have remained in the stomach, and injured it by their weight, bulk, and acrimony. There are great peculiarities as to digestion, articles being very easy of digestion to some, proving quite difficult to others. Habit has some effect here. Sailors live on the most insoluble diet, as salted meat, cheese, hard and rancid butter, oatmeal, pease, &c. and from habit digest these articles with impunity. Man can adapt himself to the greatest varieties of food as well as of climate. The succus gastricus contributes to produce hunger, for when the stomach is nearly empty it acts as a stimulant on its muscular fibres. Hunger is not produced merely from an empty stomach. Though the stomach be empty, and the appetite good, yet by abstaining from food sometime this appetite goes off, but if food be withdrawn too long, languor and debility follow, hence long fasting is a frequent remote cause of Dyspepsia.

The causes of indigestion and other ill effects are well described by Dr. WILLAN:—

“Indigestion, with acidity, flatulence, nausea, pain and distension of the stomach, arise from a variety of causes. In some, the fatigue and anxiety annexed to the extensive trades carried on in London, produce disorders of the stomach, in others irregularity as to the quality or times of their meals, and long fasting, have the same effect. Merchants, bankers, and other men of business, also counsellors, attornies, and medical practitioners of every denomination, at some seasons of the year take an early breakfast and return to a late dinner, perhaps after suffering much for two or three hours from cold and hunger, and from uneasy sensations of faintness, languor, sinking, &c. When the digestive powers have thus been previously debilitated, the process of digestion, after a hearty meal, is slow and imperfect. Under such circumstances it is not less injurious to eat heartily, and to take strong exercise im-

mediately afterwards, than to load the stomach with dinner, tea, and supper, at one sitting, a practice usual among men of business, as well as men of pleasure; likely, if it be long continued, to entail on both of them, diseases to which the class of stomachic medicines, or the salubrious waters of Bath and Cheltenham, will not be able to furnish a certain antidote.”*

The second class of remote causes, or those first occasioning debility of the whole system, and afterwards that of the stomach, are, an indolent sedentary life, intense study, grief, and vexation.

Literary men are frequent subjects of Dyspepsia. Excessive eagerness in the pursuit of any occupation, anxiety and solicitude of mind, soon debilitate all the organs of digestion, inducing, by long duration, cachexy and dropsy. Moist and cold air, without exercise, very frequently produce this disorder.

* Willan on the Diseases of London.

This state of the atmosphere is unfavourable to perspiration ; hence arise languor and depression of spirits. The whole nervous system is affected by gloomy and cloudy weather. The temperaments of nations are, doubtless, much owing to the atmosphere. Bright and warm weather relieves Dyspeptics, and all people of weak, delicate, and nervous constitutions. Violent exercise, without good living, is another cause, and hence the frequency of the complaint among the poor. Hard labour, bad food, and thin cloathing, are common causes of this and many other diseases.

Though the direct and indirect remote causes, as now stated, very generally produce Dyspepsia, we must not neglect taking into account a certain predisposition which gives efficacy to, or seconds their operation. The predisponent cause appears to be, too great sensibility of the nervous system, and a preternatural weakness of the muscular fibres of the stomach and bowels. Dyspepsia is certainly hereditary. The remote causes are sometimes

so strong as to produce both the predisposition and the disorder.

PROGNOSIS.

Idiopathic, or simple Dyspepsia, is very rarely fatal, but often proves so when it is symptomatic. The former often continues many years without producing disease in any other part of the body ; sometimes, however, by long duration, emaciation, cachexy, and dropsy follow. As Mr. ABERNETHY justly observes, the duration of such complaints, without fatal consequences, shews that it is a disorder of functions, and not a disease of structure. Dissections confirm the opinion.

RATIO SYMPTOMATUM.

Anorexy, nausea, and vomiting, proceed from sordes, undigested food, acidity, tough phlegm, or flatus, irritating and weakening the fibres of the stomach. Cardialgia

or heartburn is occasioned by morbid acid irritating the stomach, and especially that most sensible part of it called the cardia or upper orifice.

“Ventriculus enim ipse non videtur adeo sensibilis, esse, sed illum orificium superius, dum enim acidum haerit in ventriculum quietum, non inde dolor oritur, sed simul ac vel ructus expellens sursum, vel motus vel mutatur situs corporis illud applicat orificio superiori ventriculi statim molestissimus doloris sensus adest.”

“Ille Ventriculi Morsus non semper ab acido sed et ab alia quacunque acrimonia irritante Cardiam oriri potest.”*

“Omnia ostendunt tenerum sensum numerissimorum in cardia nervorum esse.”†

Vegetable matter readily becomes acid and very acrimonious. A partial inversion of

* Van Swieten, tom. 2, p. 87.

† Halleri Element. Physiolog. tom. 7. p. 339.

the lower part of the stomach seems to throw the acid to the cardia, producing acute pain. Gastrodynia and enterodynia have their origin in flatus irritating and distending the stomach and bowels, and exciting them to severe spasmodic contractions. These effects are sometimes produced by a small quantity of wind, and the discharge of it affords immediate relief. Dyspeptic patients sometimes draw in air by the oesophagus, and the eructations are thereby increased. Gastrodynia is frequently connected with cardialgia, but it arises from a different cause, being a painful spasmodic affection of the stomach. Very frequently spasms in other parts of the body accompany gastrodynia, probably from sympathy with the stomach. Sometimes these pains alternate with each other. A violent spasm of the stomach sometimes proves suddenly fatal. I saw an instance of it in a man from the sudden cessation or removal of lumbago. The next symptoms of great importance and of frequent occurrence are sympathetic affections of the

head and the heart. Among the former are to be considered vertigo, head-ache, both general and partial, tinnitus aurium, and various defects of vision. The accession of these affections, their declension and removal keeping pace with an evident disorder and improvement of the functions of the alimentary canal, make it more than probable that they are owing to the remarkable sympathy existing between those organs. The feelings of the patient are very distressing when the action of the heart and arteries is disturbed, and which discovers itself by palpitation, irregularity, and intermission of the pulse ; there is also a very unpleasant sensation at the epigastrium, called fluttering, proceeding sometimes to a troublesome pulsation. Of this last symptom Dr. BAILLIE has given a satisfactory account, in the fourth volume of the *London Medical Transactions*. He says, that “ in most cases, it will be found to be connected with an imperfect digestion and an irritable constitution.” The fluttering seems to be a slighter degree of the same affection.

Palpitation of the heart arises from distension of the stomach and bowels, with flatus impeding the action of the diaphragm and the circulation of the blood. MORGAGNI, speaking of this distension, says “Itaque, sicuti de vermibus modo dixi, ita de flatibus nunc dico, plerumque hos cordi molestos esse, non cum ejus, aut pericardii cavum, sed cum subjecta intestina occupant, et ventriculum. Quæ saepe flatus distendunt adeo, ut septo transverso, et huic incubanti cordi incommodent sic autem manifesto patet, quod in scholiis, ad observationem illam additis xvij. semel, iterum, ac tertio inculcatur, flatibus erumpentibus levare aut solvi palpitationem.”*

Dr. WHYTT and many other authors mention the same symptoms, and refer them to the same cause. The dryness of the mouth and fur on the tongue depend on the want of a proper secretion in the stomach and the parts affected. The oppression and difficulty of res-

* Epist. xxij. 16.

piration are occasioned by the distension of the stomach impeding the descent of the diaphragm. The state of the mind or the depression of the spirits so constant in Dyspepsia is produced by a derangement of the chylopoietic organs. The sympathy between the brain and the stomach, or the debility communicated to the former from the latter, gives a good explanation of the cause. Costiveness arises from atony, torpor, or want of due action in the intestines. Diarrhœa proceeds from irritation, acrimony, and a preternatural irritability of the intestines. Watching, or want of sleep, seems to be occasioned by the presence of some irritating material in the *primæ viæ*.

CURE.

Within the last thirty years it has been the fashion to consider the liver as the *fons et origo* of almost all diseases, not only of the abdomen, but also of other parts, so that nothing is more common than to hear, not only

of the seat of Dyspepsia and of gout, to be the liver, but also that of apoplexy and epilepsy. In Dyspepsia I will readily allow that the functions of this viscus may be deranged, in conjunction with those of the stomach and intestines, but I think that, for the most part, this is only in a secondary or slighter degree. In the course of thirty years extensive practice I have undoubtedly met with many cases where the symptoms clearly denoted both disorder and disease of the liver, but these instances have comparatively been very few, and have exclusively happened to persons long habituated to the abuse of wine and ardent spirits, especially the latter. We hear daily reports of a schirrous liver, but are very seldom told of a schirrous stomach, pancreas, spleen, or intestines, although we might, *a priori*, expect the one as well as the other, nay, more frequently, in the first and last of these organs, since they are daily and hourly exposed to all kinds of injuries and irritations. The stomach and intestines are the primary

and chief agents of digestion, to the performing of which the liver is only an humble auxiliary. The bile may be wholly obstructed for many years, and yet nutrition will proceed. I have seen cases of jaundice, of many years duration, yield to simple tonics, aperients, and regular exercise, after the complete failure of long mercurial courses. In these instances, as the persons for many years afterwards enjoyed good health, a lesion of structure in any viscus cannot be supposed to have occurred. The histories related by Mr. ABERNETHY appear to me to shew the bile may be unhealthy or vitiated without disease of the liver. Disordered organs should be carefully distinguished, he says, from lesions of them. If to the existence of pain in the epigastric or hypochondriac region be superadded a sallow complexion, and dark-coloured or black offensive motions, the patient is too commonly pronounced to have a diseased liver, and immediately recourse is had to mercury, to attack it *vi et armis*, and not unfrequently, by the

unguarded use of this mineral, an alarming and long-protracted salivation ensues. Many instances of this kind have come to my knowledge, so that my endeavours to assist and guide the young practitioner will be amply rewarded, if, by the observations which I have made, he shall be prevented from falling into similar errors. Let all the remote causes, and all the symptoms be duly considered, both singly, and in combination, and let a cautious and candid inference be then made ; and when this is done, let the principles of practice be guided by the same prudential mode. It should be always remembered, that in pure idiopathic Dyspepsia, such as I have described, the stomach and bowels are only deranged in their functions, not diseased in structure ; that the liver, for the most part, is only slightly and secondarily affected, and that the cure of the complaint may or can be effected, both safely and expeditiously, without any assistance from mercury. Dark or black-coloured stools do not alone afford a proper criterion for judging

the presence of a diseased liver, for it is allowed that such changes may take place from simple vitiated secretions of the intestines. Even Mr. ABERNETHY, the great advocate for unhealthy bile, thinks that the alvine evacuations which resemble pitch are chiefly composed of diseased secretions from the internal surface of the intestines. The speedy removal of this colour, by a few doses of simple cathartics, or of ol. terebinth, is a further proof of its cause. The twelfth case of this author was one of simple Dyspepsia, but of several months duration, and in which the appetite and digestion were much impaired, the tongue thickly furred, and the fœces blackish. In a very few days, by the taking of infusum gentianæ, and senna, with tinct. cardamomi, in such doses as to produce daily evacuations, and a small portion of pil. hydrargy, at proper intervals, the patient recovered. There is good reason to believe that the simple laxative and tonic would alone have succeeded. It is not however against the cautious use of unirritating

doses of mercury, according to the judicious practice of Mr. ABERNETHY, in some obstinate, complicated, and protracted cases of Dyspepsia, that I wish to caution the young practitioner, but against the unguarded use of it in general. At the beginning of severe attacks of Dyspepsia, and where the alvine discharges are much discoloured, it may be advisable to combine a few doses of mercury with other cathartics, in order to communicate greater stimulus to the bowels, but in more chronic affections, or in Dyspepsia of long duration, other cathartics, combined with tonics, will be much safer and more effectual. In the cure of Dyspepsia it is necessary to correct, obviate, or remove the unhealthy or vitiated secretions of all the chylopoietic viscera, but chiefly those of the alimentary canal, since these, either as cause or effect, take place in all cases of it. The curative indications are threefold, and respect first, the avoiding of the remote causes; secondly, the palliation or removal of urgent symptoms; and thirdly, the restoring of the

tone of the stomach in particular, and of the system in general.

The great difficulty experienced in the cure of Dyspepsia, arises from the continued operation of the remote causes, and the unwillingness of patients to submit to, and persevere in, for a sufficient length of time, a proper course of treatment. In many cases the omission alone of the remote causes will be sufficient to accomplish a cure. The patient must be therefore diligently encouraged to correct the errors flowing from improper diet, the want of exercise, &c. An improper diet is acknowledged to be a very frequent remote cause of Dyspepsia, and, therefore, too great attention cannot be paid to the taking of that kind and quantity of food, which is best adapted to the digestive powers of the stomach. From my own observation, I have generally found the following regimen agree best with Dyspeptics, and with all hysterical and hypochondriacal people. To make the breakfast con-

sist of cocoa or thin chocolate, or of sage, rosemary, or ginger tea, to which may be added one or two soft boiled eggs, with a little fresh butter, spread cold on bread or biscuit; with some patients butter in every form disagrees. The present fashion of dining late is extremely adverse to the preservation and recovery of health, and will, I fear, in this complaint, render the best curative means ineffectual. The time in fashionable life of taking luncheon is the most appropriate for dinner, and by which it should be superseded. Those who are in the habit of taking meat for breakfast, luncheon, and dinner, will eventually suffer from repletion and all its ill consequences.

In general animal food taken once a day is quite sufficient for Dyspeptics, this should be plain and in moderate quantity, and that of beef, mutton, or fowl, is the best. The vegetables should be few and of the most tender kind; mealy potatoes seldom disagree. Plain cold water, or toast water, in small quan-

tity, is the best diluent at dinner. The fat of meat, pie-crust, and bacon, and other greasy substances, as also dried and salted meats, nuts, acids, and all vegetables readily disposed to assume an acid fermentation, are improper. To those who can afford wine, two or three glasses, either of port or sherry, may be taken to advantage. The best substitute for wine is good porter, and with which most parts of the kingdom are now well supplied. When dinner is taken early and moderately, a light supper is admissible, and for this purpose an egg, some seed-cake, or biscuit, with one glass of wine, will afford to most people a grateful and refreshing stimulus, and by relieving uneasy sensations promote sleep. The second indication embraces the removal or correction of crudities in the stomach and bowels, acidity, flatulence, vomiting, costiveness, diarrhoea, &c. of which I shall severally treat. In some cases vomiting is a safe and speedy remedy to remove the vitiated contents of the stomach, but emetics, however, require great

caution, and when used they should always be gentle, and consist of ipecacuanha, in preference to antimony : from fifteen to twenty grains are an adequate dose. Emetics are adapted to cases of Dyspepsia, proceeding from improper food, either in quantity or quality, and especially when the complaint is suddenly produced. They are not eligible for habitual vomiting, for although they agitate and excite the whole system, they afterwards proportionally weaken and disorder it. Cathartics are generally preferable to emetics, and the mildest of these also are the best. An early exhibition of cathartics will supersede the necessity of emetics. The body must be kept daily open, and this, from long experience, I have found to be most certainly and properly effected by a combination of cathartic, tonic, and stimulant medicines. In most cases I have found an union of rhubarb, aloes, senna, and cascarrilla, or canella alba, of decided benefit, and, to keep the bowels in a regular and proper state of laxity, the bitter quality of aloes and

rhubarb renders them better than jalap or the saline purges, the latter have a disagreeable and sedative effect; some people, however, cannot take aloes from its griping and injuring the parts about the rectum, causing tenesmus. *Ol ricin*, in such cases, will often answer, and it may be mixed with some spirituous tincture, as *tinct. rhei*, *sennæ*, or *jalapæ*.*

Absorbent cathartics, as *magnesia*, or this joined with rhubarb, answers very well. Simple acidity is best corrected by absorbents. Calcareous earth and *magnesia* may be used in conjunction; calcareous earth, in a large dose, is not always an astringent, it then sometimes proves purgative; in small doses it is a good medicine in diarrhœa, and the *potio cretæ* is an eligible form of giving it. *Magnesia*, mixing with an acid in the stomach, becomes a neutral and saline purgative when there is a

* The rectified oil of turpentine is an excellent medicine in *Dyspepsia*, and has a remarkably quick effect in changing the dark, vitiated, and offensive alvine discharges to a healthy colour. Twenty or twenty-five drops may be given, in the form of a julap, three times a day. This remedy should be always tried, in such cases, previously to the use of mercury.

deficiency of acid; magnesia and the potassa supertartrata become cathartic. In cases of acidity a total disuse of vegetables is not always necessary; they may be taken, in small quantity, with plain animal food, and particularly when they induce patients to take more of the latter than they could take without them. From numerous trials I have found the oxyd of bismuth a most efficacious and useful remedy in almost every symptom of Dyspepsia, but especially in vomiting, acidity, and flatulence, or in cardialgia and gastrodynia. I frequently combine it with ginger, or cayenne pepper, and give it in the form of pills, conjoining some tonic, aperient, and stimulant infusion. Frequently also I have found the extract of hyoscyamus an useful adjunct by its anodyne virtue without any astringency. Oxyd of bismuth seems to have a specific operation on the stomach, since when it succeeds its good effects are very quickly produced. The mineral acids both by their tonic and antizymic power, are often valuable remedies in

removing acidity. The nitric acid may be given in doses, from five to twenty drops, night and morning, or thrice a day. It may be taken in plain or barley water; from ten to thirty drops of the diluted sulphuric acid, and from five to twenty of the muriatic acid may be taken in the same way, or diluted till they become agreeably acid. The sulphuric in general agrees best, and proves an excellent tonic. The heartburn or cardialgia may often be relieved by absorbents and opium, frequently magnesia alone, answers better than any other remedy, or even when every other fails. Gastrodynia, depending on flatulence, is relieved or removed by carminatives and stimulants. Æther and tinct. opii, in adequate doses, and properly diluted, have generally a prompt and beneficial effect. The tincture or extract of hyoscyamus is, on many occasions, preferable to opium, since, in sufficient doses, it proves efficient without inducing costiveness. The saline mixture, in a state of effervescence alone, or with opium in

a solid or liquid state, or in the form of enema is generally an useful medicine in suppressing vomiting. A blister applied to the epigastric region often stops or controls this symptom, and which seems to depend on sympathetic action between the skin and stomach.

“A blister acts with more permanent and certain effect, by stimulating a part of the skin and thence affecting the whole of it, and of the stomach by association, and thence removes the most obstinate heartburns and vomitings.”*

We now come to the third or last indication. which is to strengthen the tone of the stomach in particular, and that of the system in general. These intentions are to be fulfilled by various means, such as proper and regular exercise, appropriate diet and tonic medicines. The rules for diet having been already given, it remains only to speak of exercise and medicines. Exercise is the most powerful remedy for strengthening the whole system, and we depend more on it than on any other means singly

* Darwin's Zoonomia.

taken. Persons at first using exercise often find themselves unrelieved, but if they persevere, health and spirits follow. Gestation may be used when walking cannot, but riding on horseback is the best mode. The encomiums bestowed on this by Dr. SYDENHAM, in the curing of consumption, are much more applicable to its utility in Dyspepsia. “Si enim nobiscum reputemus ventrem inferiorem in quo disponuntur organa secretoria, hoc maxime exercitio, vibrari, eaque succussionibus aliquot mille uno in die exagitari solere, facile credemus eadem, succum quemlibet rementitium ibi impactum, ope dicti exercitii posse excutere, et quod majoris adhuc est momenti, validiori ista caloris nativi excitatione, ita corroborari, ut munere, quod iis mandavit natura, in sanguine depurando recte defungantur.”* Again, when speaking of the good effects of riding on horseback in hypochondriasis, the same illustrious physician says, “At vero nihil ex omnibus, quæ mihi hætenus

* Sydenhami Opera Medica, p. 212.

innotuere, adeo impense sanguinem spiritus-
que fovet, firmatque, ac diu multumque sin-
gulis fere diebus equo vehi. Cum enim in hac
gymnasticæ specie, impetus fere omnis, in
ventrem inferiorem fiat, in quo vasa excre-
toria (quotquot fœculentiis in sanguinis massa
stabulantibus, educendis a natura instituuntur)
sita sint; quæ tanta functionum perversio,
aliave organorum naturalis impotentia vel
fingi potest, cui tot succussionum millia
eodem die ingeminatæ idque sub dio, openi
non attulerint? cujus callidum innatum us-
que adeo deferbuerit ut hoc motu non exci-
tatur, et denuo effervescat? quæ vero sive
præternaturalis substantia sive succus depra-
vatus in aliquo horum partium sinu recondi
potest, qui non hoc corporis exercitio, vel in
statum naturæ consentaneum perducatur, vel
quaquaversum dissipetur elimineturque? ”*

CELSUS also speaks highly of exercise in the
cure of this disease, which was frequent even
in his time. “Exercitatio primo lenis, deinde
major adhibenda est, maximeque quæ superi-

ores partes moveat, quod genus in omnibus stomachi vitiis optissimum est.” Nothing contributes more to restore the functions of both body, and mind, than sound sleep, and this is the usual reward of exercise, temperance, and early hours for rest.

“Etenim post vensectionem et catharsin, nihil que naturæ vires subruit ac noctu vīgilare, quod quiden valetudinariorum quilibet expertus adfirmabit, si serio animadverterit quanti alacrior vegetiorque resurgit, quoties se lecto temporius commiserit, quam vero energis est ac languidus, quoties ad multum noctem vigilaverit, et quamvis res eodem recidere videatur, an citius seriusve quis lectum repetat, modo per tot Horas eidem indulgeat, verbi gratia, an Horas nona cubitum eat et quinta surgat vel undecima cubitum eat et surgat septima, multum, tamen interest idque ob hanc ut existimo potissimum rationem. Interdiu scilicet spiritus dissipantur, sive in corporis exercitio, sive animi qui in minus recte valentibus, ita sunt infirmi ac debiles, at ves-

peri somni subsidio maturius opem habeant cum noctis adpulsus oeconomia corporis quasi relaxationem quamdem adferat, quo diurno tempore a solis influxu vegeta conservata, lecti calor, bruma præsertim solis vicem ut gerat necesse est! Mane vero spiritibus tama progressæ noctis quiete, quam a lectuli calore, refocillatis invigoratisque, præterquam quod dies superveniens firmitatem, ac robur corporis tono conciliet, diluculo surgere hoc tempore, licet horam unam alteramve a somno matutino detrahat, non ita altum vulnus naturæ infligit ac vigiliæ vespertinæ ad horam unamvel alteram protractæ. Quamobrem istis qui Podagræ obnoxii sunt, auctor ego sum hyeme præcipue ut lecto mature admodum se committunt et diluculo exsurgunt, quantumvis somnus justo brevior suadet ut ditius cubantes eundem adhuc venentur.” P. 466.

The cold bath is an excellent tonic, and very proper in many instances of Dyspepsia, or where there is sufficient strength or reaction

in the system. In weak and delicate habits the tepid or shower bath is preferable. Dyspeptics are often not relieved by either at first, but if they persevere great benefit will in general be obtained. In addition to bathing, proper exercise, and regimen, for strengthening and improving the general health, the cortex peruvianus or cinchona may often be taken with great utility, especially if it be continued for many weeks. On this remedy we have also the great authority of SYDENHAM:

“Peruvianus cortex eximias mirandasque vires in sanguine et spiritibus confertandis invigorandisque, habere nonnunquam deprehenditur. Cujus scrupulum unum mane et sero ad septimanas aliquot deglutitum sanam firmamque corporis crassam tam viris hypochondriacis quam hystericis fœminis diuturnumque aegrotantibus, dejectaque jam quasi corporis oeconomia, restituisse ipse observavi.”

P. 412.

FINIS.